

REMARKS

By this amendment, claim 11 has been added. Thus, claims 5-11 are now active in the application. Reexamination and reconsideration of the application are respectfully requested.

In items 2-11 on pages 2-5 of the Office Action, claims 5, 6, 9 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. (U.S. 5,816,783) in view of Fujikawa et al. (U.S. 4,628,876); claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. in view of Fujikawa et al. and Musso et al. (U.S. 6,695,973); and claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. in view of Fujikawa et al. and Hayashi et al. (U.S. 5,506,486). These rejections are respectfully traversed, and it is respectfully requested that the rejections be withdrawn, for the following reasons.

With reference to the present drawing figures, claim 5 is directed to a reciprocating compressor that includes a compressing element 103 which comprises a crankshaft 107, a block 115, a piston 117, a connecting rod 118, and a balancing weight 108. Claim 5 requires that the crankshaft 107, the piston 117 and the balancing weight 108 are arranged such that, throughout reciprocation of the piston 117 in the cylinder 114 of the block 115, a center of the gravity of the balancing weight 108 is always located at a position substantially opposite to the eccentric section axis 110' (see replacement Fig. 3) with respect to the main shaft axis 113 but deviated, in a rotating direction of the main shaft 109 of the crankshaft 107, from a location exactly opposite to the eccentric section axis 110' with respect to the main shaft axis 113. This relationship is clearly illustrated in replacement Fig. 3 filed December 23, 2008.

In contrast to the present invention as recited in claim 5, and as apparently recognized by the Examiner, the Oshima patent teaches a reciprocating compressor, but does "not teach that the balancing weight is deviated from a position exactly opposite the eccentric section axis," as required by claim 5. The Examiner cited the Fujikawa et al. patent for allegedly teaching the feature of present claim 5 missing from the Oshima et al. patent. In particular, the rejection relies upon the illustrated positional relationship among the center of gravity C1 of the balancing weight, the eccentric section axis 15, and the main shaft axis O1 illustrated in Fig. 7 of Fujikawa and described at column 4, lines 48-62 of Fujikawa et al.

However, the Fujikawa configuration of Fig. 7 is different than the positional relationship required by claim 5. That is, in Fig. 7 of Fujikawa et al., the center of gravity C1 of the balancing weight is always located at a position substantially opposite to the eccentric section

axis 15 with respect to the main shaft axis O1 but deviated, in the direction opposite to a rotating direction A1 of the main shaft, from a location B1 exactly opposite to the eccentric section axis 15 with respect to the main shaft. Therefore, even if it would have been obvious to a person having ordinary skill in the art to modify Oshima et al. in view of Fujikawa et al. as suggested by the Examiner, such modification would not have resulted in the present invention of claim 1 in which the center of gravity of the balancing weight is always located at a position substantially opposite to the eccentric section axis with respect to the main shaft axis but deviated, in a rotating direction of the main shaft, from a location exactly opposite to the eccentric section axis with respect to the main shaft.

Thus, in view of this clear difference between the positional relationship shown and described in Fujikawa et al. (Fig. 7) and the positional relationship required by present independent claim 5, it is believed apparent that the present invention of claim 5 would not have been obvious to a person of ordinary skill in the art over Oshima et al. in view of Fujikawa et al. Therefore, it is respectfully submitted that claim 5, as well as claims 6-11 which depend therefrom, are clearly allowable over the prior art of record.

The Examiner's attention is also directed to the dependent claims 6-11 which set forth additional features of the present invention and further define the invention over the prior art. For example, new dependent claim 11 further specifies that the crankshaft 107, the piston 117, and the balancing weight 108 are arranged such that, throughout reciprocation of the piston 117 in the cylinder 114, the eccentric section axis 110', the location exactly opposite to the eccentric section axis with respect to the main shaft 109 (see replacement Fig. 4), and the center of gravity C1 of the balancing weight 108 are arranged along the rotating direction (again, see Fig. 3) in an order starting from the eccentric section axis 11', then the location exactly opposite to the eccentric section axis with respect to the main shaft 109, and then the center of gravity C1 of the balancing weight 108, such that the location exactly opposite to the eccentric axis 110' with respect to the main shaft 109 trails the center of gravity C1 in rotation.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Akihiko KUBOTA et al.

/Charles R Watts/

By 2010.03.15 09:25:27 -04'00'

Charles R. Watts

Registration No. 33,142

Attorney for Applicants

CRW/asd
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
March 15, 2010